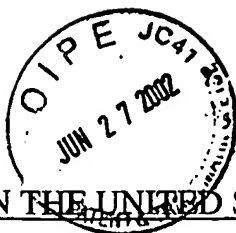


1201.66005



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Pelikan et al.)
Serial No.: 10/051,317)
Filed: January 18, 2002)
For: METHOD FOR OPTIMIZING)
A SOLUTION SET)
Art Unit: 2183)
Examiner: Unassigned)

I hereby certify that this paper is being deposited with the United States Postal Service as FIRST-CLASS mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on this date,

6/21/02

Date
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Registration No. 40,607

Attorney for Applicant

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INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. §§1.56, 1.97 and 1.98, Applicant through counsel herewith submits copies of the publications as set forth in the attached form PTO-1449 as follows:

OTHER DOCUMENTS

Samir W. Mahfoud, Niching Methods for Genetic Algorithms, Thesis, University of Illinois at Urbana-Champaign, 1995.

David Heckerman, Dan Geiger, David M. Chickering, Learning Bayesian Networks: The Combination of Knowledge and Statistical Data, Technical Report MSR-TR-94-09, Microsoft Corporation, Redmond, WA, March 1994 (Revised February 1995).

Georges Harik, Finding Multiple Solutions In Problems of Bounded Difficulty, *IlligAL Report No. 94002*, May 1994.

Shumeet Baluja, Population-Based Incremental Learning: A Method for Integrating Genetic Search Based Function Optimization and Competitive Learning, CMU-CS-94-163, Carnegie Mellon University, June 2, 1994.

David Maxwell Chickering, David Heckerman, Efficient Approximations for the Marginal Likelihood of Bayesian Networks with Hidden Variables, *Technical Report MSR-TR-96-08*, Microsoft Corporation, Redmond, WA, March 1996 (Revised April 1997).

Georges R. Harik, Fernando G. Lobo, David E. Goldberg, The Compact Genetic Algorithm, *IlliGAL Report No. 97006*, University of Illinois at Urbana-Champaign, August 1997.

Jeremy S. De Bonet, Charles L. Isbell, Jr., Paul Viola, MIMIC: Finding Optima by Estimating Probability Densities, *Advances in Neural Information Processing Systems*, MIT Press, Cambridge, MA, 1997.

David E. Goldberg, The Race, the Hurdle, and the Sweet Spot: Lessons from Genetic Algorithms for the Automation of Design Innovation and Creativity, *IlliGAL Report No. 98007*, University of Illinois at Urbana-Champaign, April 1998.

Martin Pelikan, David E. Goldberg, and Erick Cantú-Paz, Linkage Problem, Distribution Estimation, and Bayesian Networks, *IlliGAL Report No. 98013*, University of Illinois at Urbana-Champaign, November 1998.

Martin Pelikan, David E. Goldberg, and Erick Cantú-Paz, BOA: The Bayesian Optimization Algorithm, *IlliGAL Report No. 99003*, University of Illinois at Urbana-Champaign, January 1999.

Georges Harik, Linkage Learning via Probabilistic Modeling in the ECGA, *IlliGAL Technical Report 99010*, Illinois Genetic Algorithms Laboratory, Urbana, IL, January 1999.

Martin Pelikan, David E. Goldberg, and Fernando Lobo, A Survey of Optimization by Building and Using Probabilistic Models, *IlliGAL Report No. 99018*, University of Illinois at Urbana-Champaign, September 1999.

Martin Pelikan and David E. Goldberg, Hierarchical Problem Solving by the Bayesian Optimization Algorithm, *IlliGAL Report No. 2000002*, University of Illinois at Urbana-Champaign, January 2000.

Martin Pelikan and David E. Goldberg, Genetic Algorithms, Clustering, and the Breaking of Symmetry, *IlliGAL Report No. 2000013*, University of Illinois at Urbana-Champaign, March 2000.

Martin Pelikan, David E. Goldberg, and Kumara Sastry, Bayesian Optimization Algorithm, Decision Graphs, and Occam's Razor, *IlliGAL Report No. 2000020*, University of Illinois at Urbana-Champaign, May 2000.

Martin Pelikan and David E. Goldberg, Escaping Hierarchical Traps with Competent Genetic Algorithms, *IlligAL Report No. 2001003*, University of Illinois at Urbana-Champaign, January 2001.

Richard A. Watson, Analysis of Recombinative Algorithms on a Non-separable Building-block Problem, Dynamical & Evolutionary Machine Organization, Volen Center for Complex Systems, Brandeis University, Waltham, MA, 2000

Richard A. Watson, Gregory S. Hornby, and Jordan B. Pollack, Modeling Building-Block Interdependency, Dynamical & Evolutionary Machine Organization, Volen Center for Complex Systems, Brandeis University, Waltham, MA, 1998

Peter A.N. Bosman and Dirk Thierens, Continuous Iterated Density Estimation Evolutionary Algorithms Within the IDEA Framework, Department of Computer Science, Utrecht University, The Netherlands, 2000

Heinz Mühlenbein and Thilo Mahnig, FDA – A Scalable Evolutionary Algorithm for the Optimization of Additively Decomposed Functions, Theoretical Foundation GMB Lab, Real World Computing Partnership, GMB FZ Informationstechnik, Augustin, 1999

Heinz Mühlenbein, Thilo Mahnig and Alberto Ocho Rodriguez, Schemata, Distributions and Graphical Models in Evolutionary Optimization, *Journal of Heuristics*, 5 pp. 215-247, 1999.

H. Mühlenbein and G. PaaB, From Recombination of Genes to the Estimation of Distributions I. Binary Parameters, GMD – Forschungszentrum Informationstechnik, Germany (believed published circa 1998).

Samir W. Mahfoud, A Comparison of Parallel and Sequential Niching Methods, *Proceedings of the Sixth International Conference on Genetic Algorithms*, 136-143, 1995.

Nir Friedman and Moises Goldszmidt, Learning Bayesian Networks with Local Structure, 1999.

Ramon Etxeberria and Pedro Larrañaga, Global Optimization Using Bayesian Networks, (believed published circa 2000).

Scott Davies and Andrew Moore, Bayesian Networks for Lossless Dataset Compression, (believed published circa 2000).

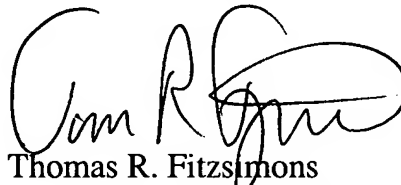
REMARKS

Applicant respectfully requests that the Examiner consider the above-listed references in the examination of this application and list these references of record in the application.

Respectfully submitted,

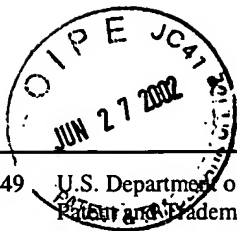
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By


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Form PTO-1449 (Rev. 8-88) U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)	Attorney Docket No.: 1201.66005	Serial No.: 10/051,317
	Applicant: Pelikan et al.	
	Filing Date: January 18, 2002	Group: 2183

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U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

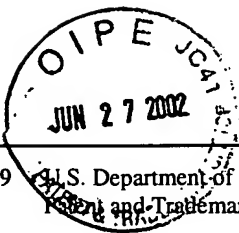
	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Samir W. Mahfoud, <u>Niching Methods for Genetic Algorithms</u> , Thesis, University of Illinois at Urbana-Champaign, 1995.
	David Heckerman, Dan Geiger, David M. Chickering, <u>Learning Bayesian Networks: The Combination of Knowledge and Statistical Data</u> , Technical Report MSR-TR-94-09, Microsoft Corporation, Redmond, WA, March 1994 (Revised February 1995).
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	Georges R. Harik, Fernando G. Lobo, David E. Goldberg, <u>The Compact Genetic Algorithm</u> , IlliGAL Report No. 97006, University of Illinois at Urbana-Champaign, August 1997.
	Jeremy S. De Bonet, Charles L. Isbell, Jr., Paul Viola, <u>MIMIC: Finding Optima by Estimating Probability Densities</u> , Advances in Neural Information Processing Systems, MIT Press, Cambridge, MA, 1997.
	David E. Goldberg, <u>The Race, the Hurdle, and the Sweet Spot: Lessons from Genetic Algorithms for the Automation of Design Innovation and Creativity</u> , IlliGAL Report No. 98007, University of Illinois at Urbana-Champaign, April 1998.
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	Georges Harik, <u>Linkage Learning via Probabilistic Modeling in the ECGA</u> , IlliGAL Technical Report 99010, Illinois Genetic Algorithms Laboratory, Urbana, IL, January 1999.

Examiner	Date Considered
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*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
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	Martin Pelikan and David E. Goldberg, <u>Hierarchical Problem Solving by the Bayesian Optimization Algorithm</u> , <i>IlligAL Report No. 2000002</i> , University of Illinois at Urbana-Champaign, January 2000.					
	Martin Pelikan and David E. Goldberg, <u>Genetic Algorithms, Clustering, and the Breaking of Symmetry</u> , <i>IlligAL Report No. 2000013</i> , University of Illinois at Urbana-Champaign, March 2000.					
	Martin Pelikan, David E. Goldberg, and Kumara Sastry, <u>Bayesian Optimization Algorithm, Decision Graphs, and Occam's Razor</u> , <i>IlligAL Report No. 2000020</i> , University of Illinois at Urbana-Champaign, May 2000.					
	Martin Pelikan and David E. Goldberg, <u>Escaping Hierarchical Traps with Competent Genetic Algorithms</u> , <i>IlligAL Report No. 2001003</i> , University of Illinois at Urbana-Champaign, January 2001.					
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	Peter A.N. Bosman and Dirk Thierens, <u>Continuous Iterated Density Estimation Evolutionary Algorithms Within the IDEA Framework</u> , Department of Computer Science, Utrecht University, The Netherlands, 2000					
	Heinz Mühlenbein and Thilo Mahnig, <u>FDA – A Scalable Evolutionary Algorithm for the Optimization of Additively Decomposed Functions</u> , Theoretical Foundation GMB Lab, Real World Computing Partnership, GMB FZ Informationstechnik, Augustin, 1999					
	Heinz Mühlenbein, Thilo Mahnig and Alberto Ocho Rodriguez, <u>Schemata, Distributions and Graphical Models in Evolutionary Optimization</u> , <i>Journal of Heuristics</i> , 5 pp. 215-247, 1999.					
	H. Mühlenbein and G. PaaB, <u>From Recombination of Genes to the Estimation of Distributions I. Binary Parameters</u> , GMD – Forschungszentrum Informationstechnik, Germany (believed published circa 1998).					
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